>>**Entry Name: Acetic anhydride,** 9CI

CAS Registry Number: 108-24-7
Related CAS Registry Numbers(s): 16649-49-3

$H_3CCO\text{-}O\text{-}COCH_3$

Molecular Formula: $C_4H_6O_3$
Molecular Weight: 102.09
Accurate Mass: 102.031695
Percentage Composition: C 47.06%; H 5.92%; O 47.02%
Biological Source: Reportedly found in watercress *Nasturtium officinale*
Use/Importance: Acetylating agent for lab. use and in manuf. of cellulose acetate (rayons) etc. Solvent.
Physical Description: Liq. with pungent, irritating odour
Melting Point: Mp –73°
Boiling Point: Bp 139.55°. Bp_{15} 44°
Solubility: Spar. sol. H_2O, sol. org. solvs.
Density: d_4^{15}1.085
Other Data: Aq. soln. reacts neutral and is very slowly hyd. to acetic acid
Hazard & Toxicity: Flammable, fl. p. 49°, autoignition temp. 316/390°. Reacts violently with some oxidants. Acid-catalysed hydrolysis can be violent. Vapour is a severe irritant of eyes, mucous membranes and skin. Contact with liq. causes burns and blisters of the skin, and can damage eyes. OES: short-term 5 ppm

Aldrich: 32010-2
Fluka: 45840
Sigma: A6404
Supelco: R40-4010

References:

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